CHICAGO BOTANIC GARDEN

Fall Color

HOW IT HAPPENS

*It all starts with **spring's** longer days and rising temperatures. New growth begins.*

SPRING

New stems emerge

Last year's overwintered buds begin to open.

In summer, sun triggers CHLOROPHYLL to make food in leaves.

SUMMER

Next year's leaf buds already set by late June.

We see **green.**

This year's leaves open fully.

Chlorophyll changes CO2 + H2O into sugar.

In fall, days shorten and food production stops; chlorophyll breaks down. As green fades, other pigments are revealed.

FALL

XANTHOPHYLLS:
We see yellow.

ANTHOCYANINS:
We see red and purple.

CAROTENOIDS:
We see orange.

TANNINS:
We see brown hues, like oak leaves.

Best fall color

cool nights
+
plenty of sun
+
no drought

wind + hard rain + frost =
leaves drop before color can peak